

**Rosemont Copper Project EIS**  
**Cooperating Agency Coordination Meeting 04/22/2010**  
**Optional Heritage Resources Workshop**  
Federal Building, 300 W. Congress, Tucson, AZ  
Room 6V6 (6<sup>th</sup> floor)  
1 p.m. – 3:30 p.m.

**Introductions (all)**

**Update on Reports (SWCA's Suzanne Griset & Jerome Hesse)**

- Archaeological survey report and Class I analysis
- Ethnohistory Phase I

**Discussion Topics**

- Draft “environmental consequences” regarding cultural resources for the alternatives identified to date (Suzanne Griset)
- Identifying “cumulative effects” – defining and describing the cumulative impact analysis area(s) for archaeological sites and tribal concerns (SWCA and FS with discussion by all)

**Next steps, next meeting, wrap-up**

**Expected Participants**

***Cooperating Agency Representatives:***

Linda Mayro, Loy Neff, Julia Fonseca, Pima County  
Amy Sobiech & Cindy Alvarez, BLM  
Jim Ayres, U. of Az.  
Peter Steere and Joe Joaquin, Tohono O'odham Nation

***Rosemont Representative:***

Gordon Cheniae

***Forest Service Representatives:***

Teresa Ann Ciapusci  
Debby Kriegel  
Bill Gillespie  
Mary Farrell  
Kent Ellett, Nogales District Ranger

***SWCA representatives:***

Dr. Suzanne Griset  
Jerome Hesse

# Rosemont Copper Project

## Cooperating Agency

## Special Topic Meeting

## Heritage Resources

04/22/2010  
 1:00 PM to 4:00 PM  
 Federal Building  
 300 West Congress  
 Tucson, Arizona

### Meeting Notes

#### Discussion:

##### Participants:

- USFS Coronado National Forest
- USDI BLM
- ⇒ Tohono O'odham Nation
- Pima County
- SWCA
- Cheniae and Associates

##### Handouts:

- Agenda
- Cumulative Effects
- Maps
  - Figure 1. Location, Coronado National Forest
  - ⇒ ○ Excerpt from Snowbowl EIS – Page 77 (Interpretive Themes and Related Resources) – Map of the Sky Island region and locations of proposed National Heritage Area
  - Excerpt from Snowbowl EIS – Page 79 (Interpretive Themes and Related Resources) – The diverse biotic communities located in the proposed National Heritage Area
- Resolution of the Tohono O'odham Legislative Council (opposing the Proposed Rosemont Copper Project); Resolution Number 09-569 dated October 22, 2009

##### 1. Update on Heritage Specialist and Cultural Data Reports

##### 2. Archeological Survey 2007 and Ethnography/Ethnostory Reports

- a. SWCA is incorporating final resource specialist comments
- 3. Archival Record Search
  - a. Initiated for the four (4) conceptual alternatives
  - ⇒ b. Noted that changes in methodology used for survey protocol from surveys done for ANAMAX and earlier mining proposals will result in different numbers of recorded sites
  - c. Data upgrades are in progress

##### 4. Tribal Interactions Overview

- a. Ethnohistory draft nearing review status

##### PPT: Class I survey overview (*Exempt from release under FOIA*)

Distributed CD copies of the Class I overview (FOIA Exempt information) to Pima County, USDI BLM, and Rosemont contractor (Gordon Cheniae of Cheniae and Associates)

- ⇒ 1. Participants viewed Class I Inventory loci maps and survey location maps
- 2. Described report components
- 3. Described resource specialists evaluation of data that is needed to sufficiently develop mitigation options

##### Cumulative Effects

- 1. Resource specialists requested input to consider in defining spatial and temporal bounds of analysis for tribal and cultural resources
- 2. Overview of cumulative effects analysis resources
- ⇒ 3. Discussion topics
  - a. Magnitude of threshold compromise
  - b. Indirect effects as a means of informing cumulative
  - c. Displaced values and activities if access is reduced or eliminated

	<ul style="list-style-type: none"> <li>d. Spiritual/cultural connections</li> </ul>
	<ul style="list-style-type: none"> <li>4. Identification of archeological values and impacts               <ul style="list-style-type: none"> <li>a. Habitation</li> <li>b. Special use sites</li> <li>c. Evaluation of range uses</li> <li>d. Continuity of use</li> </ul> </li> <li>5. Irretrievable resource commitments</li> <li>6. Multi-layered nature of cultural resource issues</li> <li>7. Need for holistic research designs – not site-by-site</li> <li>8. Structure hierarchy of archeological values               <ul style="list-style-type: none"> <li>a. Community</li> <li>b. Site type</li> <li>c. Proximate sites</li> <li>d. Complimentary activities</li> </ul> </li> <li>9. Process for incorporation of indirect effects analysis in chapter 3 of the DEIS</li> </ul>
	<b>Action Items:</b>
⇒	<ul style="list-style-type: none"> <li>• Provide comments on survey and inventory to SWCA</li> <li>• Provide SWCA spatial and temporal boundaries for indirect effects</li> </ul>
	<b>Next Meeting:</b>
⇒	May 14, 2010 @ 1:00 pm. (time and date tentative)

Name	Organization	email
Mary Farrell	Forest Service	mfarrell@ fs.fed.us
CINDY Alvarez	BLM	Cindy-Alvarez@ BLM.gov
Loy NEFF	Pima County	Loy.neff@pw.pima.gov
Gordon Cheniac	Cheniace & Assoc	gcheniac@cox. net
TERESA ANN CIAPUSCI	FOREST SERVICE	tciapusci@fs.fed.us
Suzanne Grist	SWCA	Sgrist@swca.com
Jenme Hasse	SWCA	jhasse@swca.com
Peter Steere	TGN	peter.steere@ tonation-usa.gov
Linda Mayo	Pima Co.	linda.mayo@pw.pima.gov

Rosemont Copper Project EIS  
Cooperating Agency Coordination Meeting 04/22/2010  
Optional Heritage Resource Workshop  
Participant List

<b>Name</b>	<b>Organization</b>	<b>E-mail Address</b>
Mary Farrell	Forest Service	mfarrell@fs.fed.us
Cindy Alvarez	BLM	Cindy_Alvarez@blm.gov
Loy Neff	Pima County	Loy.Neff@pw.pima.gov
Gordon Cheniae	Cheniae and Associates	gcheniae@cox.net
Teresa Ann Ciapusi	Forest Service	tciapusi@fs.fed.us
Suzanne Griset	SWCA	sgriset@swca.com
Jerome Hesse	SWCA	jhesse@swca.com
Peter Steere	Tohono O'odham Nation	peter.steere@tonation-nsn.gov
Linda Mayro	Pima County	Linda.mayro@pw.pima.gov

## ***Cumulative Effects***

Define and describe the cumulative impact analysis area for cultural resources:

- Spatial Bounds/Temporal Bounds

For example, "Encompasses xxx square miles and is bounded by xxxx."

Past, Present and Reasonably Foreseeable Future Actions

- Describe the major projects (type of actions and acreage impacted) that have occurred in this area.
- Talk about kinds of impacts by major projects of all kinds within APE and Analysis Area
- Talk about impacts by each major type of project e.g., by mining:

e.g. "The impact to cultural resources by past mining activities cannot be directly quantified for the analysis area. It is possible, however, to produce some indirect estimates of these impacts using the results of.."

- Calculate average # sites/acre in this area
- Talk about impacts by Proposed Action and Alternatives

e.g. "Overall, it is possible to roughly estimate that cumulative impacts to cultural resources in the analysis area involve approximately xxx sites, or xxx percent of the properties.

e.g. "Over the last 30 years, these impacts have been lessened by the fact that mitigation has been required for actions with federal or state involvement. Data recovery procedures, approved by federal agencies and the SHPO are intended to recover the information potential of impacted sites prior to project impacts. Over the years, these procedures continue to improve so that better information is recovered. As a result, while site loss to actions continues, better mitigation procedures are reducing the amount of information loss. This, coupled with the federal and state goal of avoiding impacts to sites where possible, has slowed the impacts to the resources base."

## ***Irretrievable and Irreversible Commitments of Resources***

Discuss by Alternative

### ***A Few References:***

*Considering Cumulative Effects Under the National Environmental Policy Act*

[http://ceq.hss.doe.gov/publications/cumulative\\_effects.html](http://ceq.hss.doe.gov/publications/cumulative_effects.html)

“Only by reevaluating and modifying alternatives in light of the projected cumulative effects can adverse consequences be effectively avoided or minimized. Considering cumulative effects is also essential to developing appropriate mitigation and monitoring its effectiveness. In many ways, scoping is the key to analyzing cumulative effects; it provides the best opportunity for identifying important cumulative effects issues, setting appropriate boundaries for analysis, and identifying relevant past, present, and future actions. Scoping allows the NEPA practitioner to “count what counts.” By evaluating resource impact zones and the life cycle of effects rather than projects, the analyst can properly bound the cumulative effects analysis. Scoping can also facilitate the interagency cooperation needed to identify agency plans and other actions whose effects might overlap those of the proposed action.”

*Consideration Of Cumulative Impacts In EPA Review of NEPA Documents* U.S. Environmental Protection Agency, Office of Federal Activities (2252A) EPA 315-R-99-002/May 1999

<http://www.epa.gov/compliance/resources/policies/nepa/cumulative.pdf>

“At a minimum, the mitigation should address the proposed project's contribution to the cumulative impacts. In addition, it is appropriate to suggest mitigation to address cumulative impacts that are caused by activities other than the proposed project. For example, mitigation could include forming partnerships among the different governmental agencies and private organizations to work on environmental restoration when those entities have contributed to cumulative impacts over a long period of time. It is important to note that EPA suggestions for mitigation are not necessarily constrained by whether the action agency has jurisdiction to implement the measures but the measures should be realistic and technically feasible.

“Determine which resources are cumulatively affected by considering:

- (1) whether the resource is especially vulnerable to incremental effects;
- (2) whether the proposed action is one of several similar actions in the same geographic area;
- (3) whether other activities in the area have similar effects on the resource;
- (4) whether these effects have been historically significant for this resource; and
- (5) whether other analyses in the area have identified a cumulative effects concern.

While a broad consideration of resources is necessary for the adequate assessment of cumulative impacts, the analysis should be expanded for only those resources that are significantly affected.

Geographic boundaries and time periods used in cumulative impact analysis should be based on all resources of concern and all of the actions that may contribute, along with the project effects, to cumulative impacts. Generally, the scope of analysis will be broader than the scope of analysis used in assessing direct or indirect effects. To avoid extending data and analytical requirements beyond those relevant to decision making, a practical delineation of the spatial and temporal scales is needed. The selection of geographic boundaries and time period should be, whenever possible, based on the natural boundaries of resources of concern and the period of time that the proposed action's impacts will persist, even beyond the project life."

**Thresholds:** "Determining a threshold beyond which cumulative effects significantly degrade a resource, ecosystem, or human community is sometimes very difficult because of a lack of data. Without a definitive threshold, the NEPA practitioner should compare the cumulative effects of multiple actions with appropriate national, regional, state, or community goals to determine whether the total effect is significant. These desired conditions can best be defined by the cooperative efforts of agency officials, project proponents, environmental analysts, non-governmental organizations, and the public through the NEPA process.

Holistic Conservation and Cultural Triage: American Indian Perspectives on Cultural Resources  
Richard W. Stoffle and Michael J. Evans, *Human Organization* Volume 49, Number 2 /  
Summer 1990, pages 91 - 99

<http://sfaa.metapress.com/app/home/contribution.asp?referrer=parent&backto=issue,1,11;journal,80,272;linkingpublicationresults,1:113218,1>

"The National Environmental Policy Act and other laws require American Indian cultural resource studies as part of the environmental impact assessment of development projects. Indian people make two general types of responses: holistic conservation ("this land is mine, go away") and cultural triage ("if you go ahead with the project then these are the cultural resources that require most protection"). The analysis is based on 11 cultural resource projects. The major findings are that (1) more policy impacts can be achieved by having both types of responses, (2) the research methods can influence whether or not both types of responses will be provided by Indian people, and (3) Indian people experience emotional and social risks when they engage in cultural triage."



# Coronado National Forest

Santa Catalina, Douglas, Nogales,  
Safford, and Sierra Vista Ranger Districts

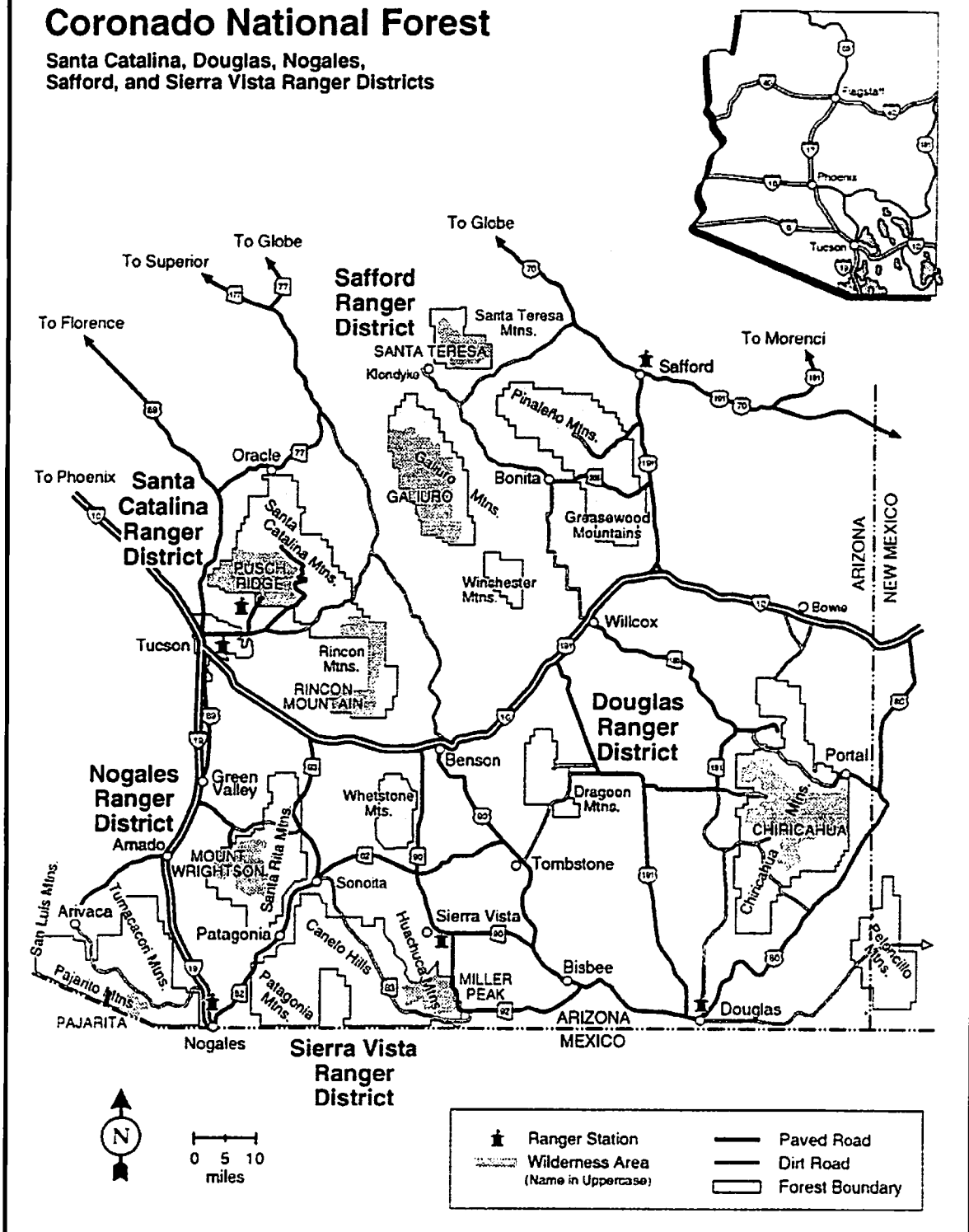
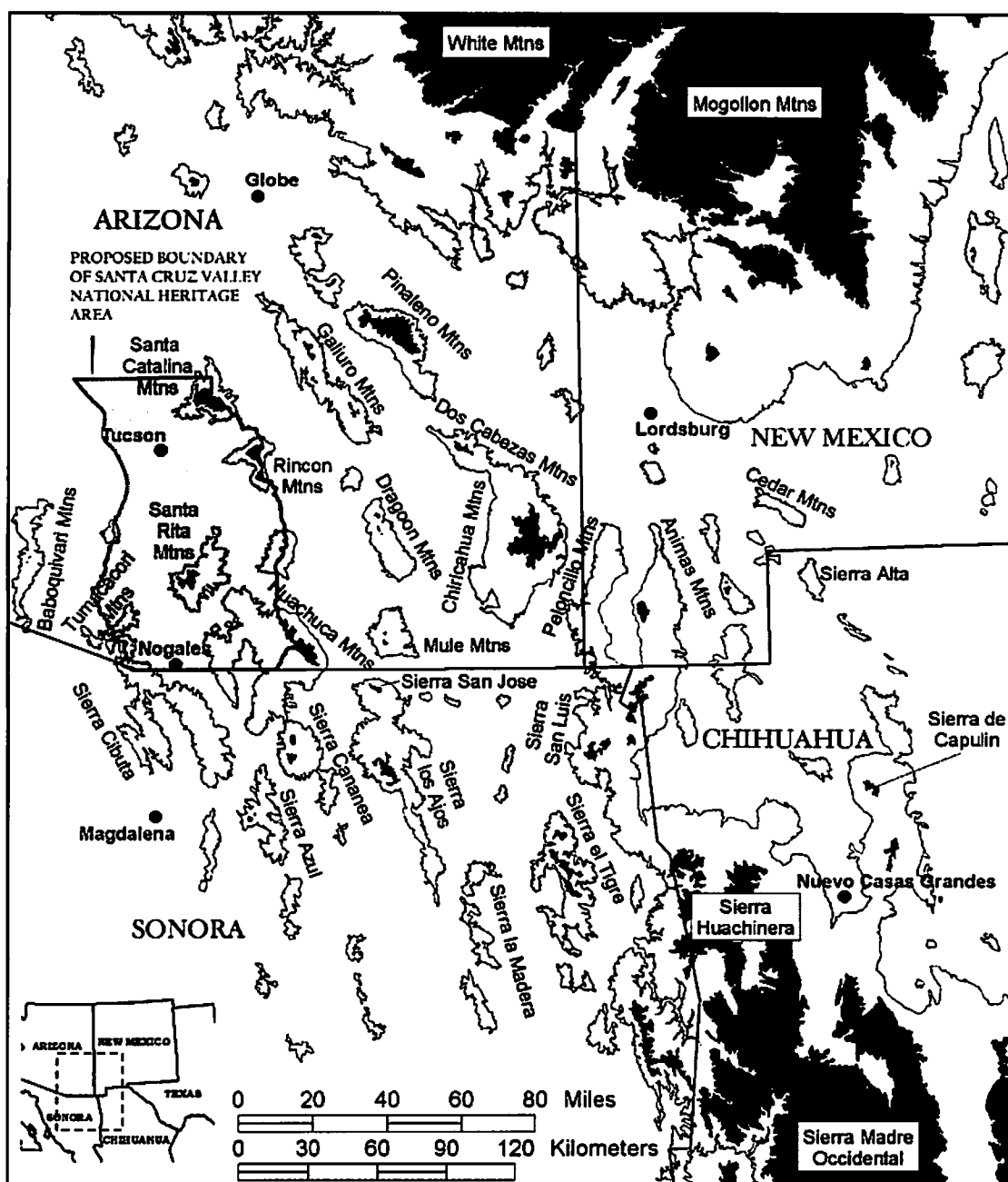


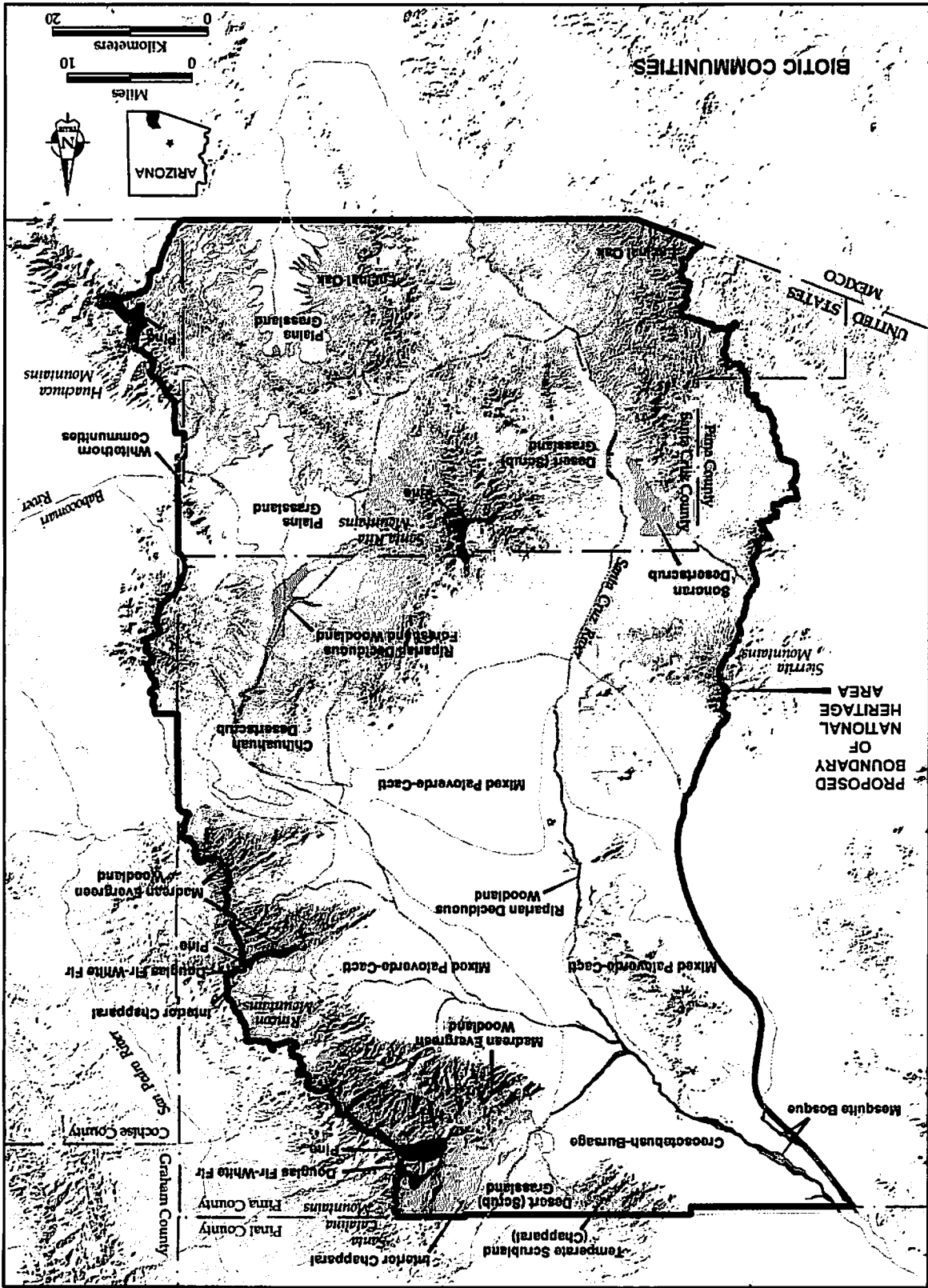
Figure 1. Location, Coronado National Forest.



Map of the Sky Island region and location of the proposed National Heritage Area (copyright 2004 Cory Jones, Sky Island Alliance).

thunderstorms. Rain falls about equally in the two seasons and provides the region with an average of 12 inches annually, although this varies widely with elevation, as do temperatures.

To my mind these live oak-dotted hills fat with side oats grama, these pine-clad mesas spangled with flowers, these lazy trout streams burbling along under great sycamores and cottonwoods, come near to being the cream of creation. — Aldo Leopold, 1937



The diverse biotic communities located in the proposed National Heritage Area.

**RESOLUTION OF THE TOHONO O'ODHAM LEGISLATIVE COUNCIL**  
**(Opposing the Proposed Rosemont Copper Project)**

**RESOLUTION NO. 09-569**

1 **WHEREAS, it is policy of the Tohono O'odham Nation to promote "enjoyable harmony between the**  
2 **members of the Nation and their environment," and to preserve "its historic and**  
3 **cultural artifacts and archeological sites" as well as "preserve and cultivate native**  
4 **arts, crafts and traditions" (Constitution, Article VI, Section 1(c)(8) and Article XVIII,**  
5 **Section 1); and**

6 **WHEREAS, it is also the Nation's policy "to seek the return to the Nation of lands and natural**  
7 **resources, including minerals and water rights, within or adjacent to the Nation, or**  
8 **which originally were a part of the historic Papagueria." (Constitution, Article XVI,**  
9 **Section 9); and**

10 **WHEREAS, Augusta Resource Corporation has proposed an open pit copper mining project, called**  
11 **Rosemont Copper Project, on 995 acres of private land and 3,670 acres of National**  
12 **Forest Service land about 30 miles southeast of Tucson, Arizona near the Santa Rita**  
13 **Mountains (Federal Register/Vol. 73, No. 50/ Thursday, March 13, 2008/ Notices, 13527);**  
14 **and**

15 **WHEREAS, Augusta Resource Corporation will operate the open pit copper mine on its private,**  
16 **patented mining claims, however, Augusta proposes to use unpatented mining claims**  
17 **located on public, National Forest Service land to dump the overburden from its**  
18 **mining operations; and**

19 **WHEREAS, the United States Forest Service is currently preparing a draft Environmental Impact**  
20 **Statement on the potential consequences and effects of the open pit mine on National**  
21 **Forest Service's lands; and**

22 **WHEREAS, the San Xavier District, United States Congress Representatives Grijalva and Giffords,**  
23 **the Tucson City Council, the Pima County Board of Supervisors, and various**  
24 **community groups such as Save the Scenic Santa Ritas oppose the proposed Rosemont**  
25 **Copper Project due to its location and potentially devastating environmental impacts;**  
26 **and**

27 **WHEREAS, the proposed location of the Rosemont Copper Project is on the Nation's ancestral**  
28 **lands and would significantly impact, destroy, or alter cultural and archeological sites**  
29 **containing numerous Archaic, Hohokam, and O'odham funerary objects, sacred**  
30 **objects, and other archeological and cultural items, as well as permanently alter the**  
31 **Cultural and Natural Landscapes of the area; and**

32 **WHEREAS, the Archeological Survey for the Proposed Rosemont Copper Mine, Pima County,**  
33 **Arizona, March 2009, recorded 96 cultural resource sites, 70 of which were**  
34 **recommended eligible for listing in the National Register of Historic Places; and**

**RESOLUTION NO. 09-569**  
**(Opposing the Proposed Rosemont Copper Project)**  
**Page 2 of 3**

1 **WHEREAS, the Nation considers the entire Ce:wi Duag (Santa Rita Mountains) eligible for listing**  
2 **as a Traditional Cultural Place/Property under the National Historic Preservation Act,**  
3 **16 U.S.C. § 470a(d)(6)(A), as the area was traditionally used by Tohono O'odham people**  
4 **for hunting and gathering; and**

5 **WHEREAS, biological studies have not yet been completed for the project, but project consultants**  
6 **have indicated that the following threatened and endangered species have been found**  
7 **within the project area: lesser long-nosed bat, southwestern willow flycatcher, and**  
8 **Chiricahua leopard frog; and**

9 **WHEREAS, threatened and endangered species are likely to be negatively impacted if the**  
10 **Rosemont Copper Project is approved as habitat and forage destruction will occur;**  
11 **and**

12 **WHEREAS, an unique species of talussnail, the Rosemont talussnail, is likely to be severely**  
13 **impacted, if not completely eliminated if this project is approved; and**

14 **WHEREAS, the Nation is familiar with the environmental impacts of open pit copper mining, its**  
15 **drain on natural resources and the effect on water quality, contamination of the**  
16 **underground aquifer, and introduction of dissolved solids, sulfates, and metals into**  
17 **the underlying groundwater; and**

18 **WHEREAS, if approved, the Rosemont Copper Project will be one of the largest copper mines in**  
19 **the United States; and**

20 **WHEREAS, the proposed Rosemont Copper Project would adversely impact ancestral lands and**  
21 **destroy natural resources and negatively affect the surrounding environment.**

22 **NOW, THEREFORE, BE IT RESOLVED by the Tohono O'odham Legislative Council that it opposes**  
23 **Angusta Resource Corporation's proposed Rosemont Copper Project.**

24 **The foregoing Resolution was passed by the Tohono O'odham Legislative Council on the 22<sup>ND</sup>. Day**  
25 **of OCTOBER, 2009 at a meeting at which a quorum was present with a vote of 2,595.50 FOR; -0-**  
26 **AGAINST; -0- NOT VOTING; and [03] ABSENT, pursuant to the powers vested in the Council by Section**  
27 **1 of Article VI of the Constitution of the Tohono O'Odham Nation, adopted by the Tohono O'Odham**  
28 **Nation on January 18, 1986; and approved by the Acting Deputy Assistant Secretary - Indian Affairs**  
29 **(Operations) on March 6, 1986, pursuant to Section 16 of the Act of June 18, 1934 (48 Stat. 984).**  
30  
31  
32

33 **TOHONO O'ODHAM LEGISLATIVE COUNCIL**

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37 **Verlon M. Jose, Legislative Chairman**

38 22 day of October, 2009  
39  
40

1 ATTEST:


2 

3  
4 Evonne Wilson, Legislative Secretary

5  
6 22 day of October, 2009.

7  
8 Said Resolution was submitted for approval to the office of the Chairman of the Tohono O'Odham  
9 Nation on the 22 day of October, 2009 at 6:19 o'clock, P.M.,  
10 pursuant to the provisions of Section 5 of Article VII of the Constitution and will become effective  
11 upon his approval or upon his failure to either approve or disapprove it within 48 hours of  
12 submittal.

13 TOHONO O'ODHAM LEGISLATIVE COUNCIL

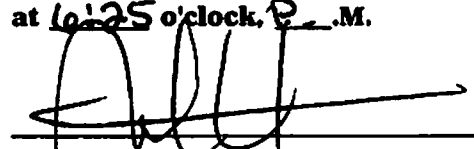
14   
15  
16 Verlon M. Jose, Legislative Chairman

17  
18  
19  
20  
21 ☒ APPROVED

on the 22 day of October, 2009

22  
23 ☐ DISAPPROVED

at 6:25 o'clock, P.M.

24  
25  
26   
27 NED NORRIS, JR., CHAIRMAN  
28 TOHONO O'ODHAM NATION  
29 VICE CHAIRMAN

30  
31  
32  
33 Returned to the Legislative Secretary on the 23 day of

34 October, 2009, at 11:31 o'clock, A.M.

35  
36  
37 

38  
39 Evonne Wilson, Legislative Secretary

ACTION: OPPOSING THE PROPOSED ROSEMONT COPPER PROJECT

MOVED: COUNCILMAN TIMOTHY JOAQUIN

SECOND: COUNCILWOMAN OLIVIA VILLEGAS-LISTON

DATE: OCTOBER 22, 2009

DISTRICT	LEGISLATIVE REPRESENTATIVES	# OF VOTES	FOR	AGAINST	NOT VOTING	ABSENT
SIF ODAK 198.7	1. WAVALENE ROMERO (Nicholas Jose)	99.35	X			
	2. MARY LOPEZ ( )	99.35	X			
SELLS 449.6	1. KIMBERLY LISTO ( )	224.80	X			
	2. EVELYN B. JUAN MANUEL ( )	224.80	X			
SCHUK TOAK 159.0	1. FRANCES B. CONDE (Fredrick Jose)	79.50	X			X
	2. LINDA PARLEY (Agnes Joaquin)	79.50	X			
SAN XAVIER 204.7	1. FELICIA NUÑEZ ( )	102.35	X			X
	2. OLIVIA VILLEGAS-LISTON (Eugene Enis)	102.35	X			
SAN LUCY 187.1	1. LORRAINE EILER (Charlotte Cadavas)	93.55	X			
	2. GLORIA RAMIREZ ( )	93.55	X			
PISINEMO 184.5	1. CHESTER ANTONE (Tony Murrietta)	92.25	X			
	2. EDWARD MANUEL (Gerald Fayuant)	92.25	X			
HICKIWAN 174.5	1. MICHELLE ORTEGA ( )	87.25	X			
	2. SANDRA ORTEGA ( )	87.25	X			
GU VO 206.3	1. GRACE MANUEL ( )	103.15	X			X
	2. PAMELA ANGHILL (Angela Ortiz)	103.15	X			
GU ACHI 230.1	1. TIMOTHY L. JOAQUIN ( )	115.05	X			
	2. CYNTHIA E. MANUEL ( )	115.05	X			
CHUKUT KUK 277.0	1. ETHEL GARCIA <i>(Absent)</i> (Sara Mae Williams) <i>(Present)</i>	138.50	X			
	2. VERLON M. JOSE ( )	138.50	X			
BABOQUITVARI 324.0	1. FRANCES MIGUEL (Roberta Harvey)	162.0	X			
	2. FRANCES G. ANTONE ( )	162.0	X			
TOTAL		2,595.50	2,595.50	-0-	-0-	[03]